

Software Diversification for WebAssembly

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Abstract

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Sammanfattning

LIST OF PAPERS

WebAssembly Diversification for Malware Evasion Javier Cabrera-Arteaga, Tim Toady, Martin Monperrus, Benoit Baudry Computers & Security, Volume 131, 2023, 17 pages https://www.sciencedirect.com/science/article/pii/S01674048230

2. Wasm-mutate: Fast and Effective Binary Diversification for WebAssembly

Javier Cabrera-Arteaga, Nicholas Fitzgerald, Martin Monperrus, Benoit Baudry

Under review, 17 pages

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https://arxiv.org/pdf/2309.07638.pdf

3. Multi-Variant Execution at the Edge

Javier Cabrera-Arteaga, Pierre Laperdrix, Martin Monperrus, Benoit Baudry

Moving Target Defense (MTD 2022), 12 pages

https://dl.acm.org/doi/abs/10.1145/3560828.3564007

4. CROW: Code Diversification for WebAssembly

Javier Cabrera-Arteaga, Orestis Floros, Oscar Vera-Pérez, Benoit Baudry, Martin Monperrus

Measurements, Attacks, and Defenses for the Web (MADWeb 2021), 12 pages https://doi.org/10.14722/madweb.2021.23004

5. Superoptimization of WebAssembly Bytecode

Javier Cabrera-Arteaga, Shrinish Donde, Jian Gu, Orestis Floros, Lucas Satabin, Benoit Baudry, Martin Monperrus

Conference Companion of the 4th International Conference on Art, Science, and Engineering of Programming (Programming 2021), MoreVMs, 4 pages https://doi.org/10.1145/3397537.3397567

6. Scalable Comparison of JavaScript V8 Bytecode Traces
Javier Cabrera-Arteaga, Martin Monperrus, Benoit Baudry
11th ACM SIGPLAN International Workshop on Virtual Machines and
Intermediate Languages (SPLASH 2019), 10 pages

https://doi.org/10.1145/3358504.3361228

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Contents

List	of Papers	iii
Ackn	nowledgement	v
Cont	ents	1
ΙΤ	hesis	3
1 In	ntroduction	5
1.1	WebAssembly	6
1.2	Software Diversification	7
1.3	List of contributions	7
1.4	Summary of research papers	8
2 B	ackground and state of the art	11
2.1	WebAssembly	11
2.2	Software diversification	21
3 A	utomatic Software Diversification for WebAssembly	29
3.1	CROW: Code Randomization of WebAssembly	30
3.2	MEWE: Multi-variant Execution for WebAssembly	35
3.3	WASM-MUTATE: Fast and Effective Binary for WebAssembly . $\ . \ $.	39
3.4	Comparing CROW, MEWE, and WASM-MUTATE	44
4 E	xploiting Software Diversification for WebAssembly	49
4.1	Offensive Diversification: Malware evasion	49
4.2	Defensive Diversification: Speculative Side-channel protection $\ \ . \ \ .$	56
5 C	onclusions and Future Work	65

2 CONTENTS

5.1	Summary of technical contributions	65		
5.2	Summary of empirical findings	66		
5.3	Future Work	67		
II In	acluded papers	69		
Super	roptimization of WebAssembly Bytecode	73		
CROW: Code Diversification for WebAssembly				
Multi-Variant Execution at the Edge				
WebAssembly Diversification for Malware Evasion				
Wasm-mutate: Fast and Effective Binary Diversification for WebAssembly				
Scalable Comparison of JavaScript V8 Bytecode Traces				

Part I

Thesis